REMARKS

Claims 1-4 and 14-21 are pending. Claims 1-4, 12, 14, 17, 18, 20, and 21 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 6,126,611 to Bourgeois et al. Claims 1, 2, 4, and 14-19 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 6,574,507 to Bonnet et al. Reconsideration is respectfully requested in light of the above claim amendments and the following remarks.

Restriction Requirement

Applicants hereby confirm the election, without traverse, of the invention of Embodiment 1, corresponding to Claims 1-4 and 14-21.

Rejections Under 35 U.S.C. §102

Claims 1-4, 12, 14, 17, 18, 20, and 21 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 6,126,611 to Bourgeois et al. Claims 1, 2, 4, and 14-19 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Number 6,574,507 to Bonnet et al. Reconsideration is respectfully requested in light of the above claim amendments and the following remarks.

Applicants' claimed invention, as recited in pending independent claims 1, 14, and 18, is directed to an implantable cardiac stimulation device and corresponding method. As recited in Claim 1, the device includes a physiologic sensor that is capable of sensing a physiologic parameter and generating corresponding signals, one or more pulse generators that are capable of generating cardiac pacing pulses, and circuitry connected to the sensor that is operative to detect either a resting condition or a sleep condition and that is responsive thereto to control the one or more pulse generators to pace the heart at a sleep apnea **prevention** rate.

Thus, the claimed device is responsive to detection of either a resting condition or a sleep condition to proactively pace the heart at a sleep apnea prevention rate, in an effort to **prevent** any sleep apnea events from occurring.

In contrast, neither the Bourgeois et al. patent nor the Bonnet et al. patent teaches or suggests such a system. Bourgeois et al. disclose a system that provides sleep apnea **termination** pacing only in response to detection of an actual sleep apnea event, as is clearly shown in FIG. 1. The Examiner points to Column 5, line 65 to Column 6, line 4, which purportedly discloses detecting a sleep condition and pacing at a sleep apnea termination rate in response to only detecting the sleep condition. However, what that passage actually describes is an embodiment in which the sleep apnea circuit can be turned on and off, and that one would turn on the detection algorithm when going to sleep so that the device will monitor for a sleep apnea event and provide sleep apnea termination pacing in response to a sleep apnea event (see Col. 5, lines 53-55). This is made even more clear by Column 6, lines 13-14, which states that "[t]he unusually high paced heart rate will cause the patient to wake and this should terminate the apnea event". Clearly the sleep apnea termination pacing is not initiated until an apnea event is actually detected, since it is described as terminating an actual event, and moreover because the pacing rate is set so high as to prevent the patient from sleeping. If the sleep apnea termination pacing was initiated upon the patient entering a sleep state, as argued by the Examiner, the patient would be immediately awakened. Clearly this is not what Bourgeois et al. are teaching.

Likewise, Bonnet et al. teach a system that applies electrostimulation only in response to a detected sleep apnea event. As described at Column 2, beginning on line 64, the system includes means for determining an occurrence of an apnea in response to a measured respiratory signal, and means for delivering SAS (sleep apnea syndrome) stimulation, so as to apply selectively to the patient an increased cardiac stimulation rate **in the event of a detection of an apnea**. Thus, until an apnea event is detected, Bonnet et al. do not deliver sleep apnea prevention pacing; rather, only in response to detecting apnea do they disclose delivering sleep apnea **termination** pacing.

Thus, unlike Applicants' claimed invention that provides sleep apnea **prevention** pacing upon detecting one of a resting condition and a sleep condition, both prior art references disclose systems and methods that deliver sleep apnea **termination** pacing in response to an actual apnea event. Therefore, Applicants' claimed invention is

proactive to **prevent** sleep apnea events from occurring by applying sleep apnea prevention pacing before an apnea event occurs, whereas the prior art references are reactive to **terminate** already-occurring sleep apnea events.

CONCLUSION

In light of the above claim amendments and remarks, it is respectfully submitted that the application is in condition for allowance, and an early notice of allowance is requested.

Respectfully submitted,

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